What is claimed is:

1. A method for a mobile terminal to transmit non-speech data in voice channel, comprising:

(a) generating a non-speech data frame Tx (transmitting) indication according to the preset non-speech data frame Tx indication generating mode;

(b) generating a VAD (voice activity detection) flag about the next frame according to the non-speech data frame Tx indication;

(c) transmitting the non-speech data frame during the next frame if the VAD flag indicates that the next frame is non-speech period.

2. The method of claim 1, wherein step (b) further includes:

adjusting the VAD threshold currently used by the mobile terminal according to said non-speech data frame Tx indication;

generating the VAD flag of the next frame according to the adjusted VAD threshold.

3. The method of claim 2, wherein step (b1) further includes:

backing up the current VAD threshold;

setting a value higher than the current VAD threshold as the adjusted VAD threshold;

restoring the adjusted VAD threshold to the backup VAD threshold after executing said step (c).

4. The method of claim 3, wherein said non-speech data frame Tx indication generating mode can be set to generate the Tx indication to transmit said non-speech data frame instantly when there exists said non-speech data frame to be transmitted.

5. The method of claim 3, wherein said non-speech data frame Tx indication generating mode can be set to generate the Tx indication to transmit said non-speech data frame instantly when the Tx deadline of the non-speech data frame to be transmitted expires.

6. The method of claim 2, wherein step (b1) further includes:

selecting parameters corresponding to different priority according to said non-speech data frame Tx indication;

adjusting the current VAD threshold to the values corresponding to different priority, by using the selected parameters.

7. The method of claim 6, wherein said non-speech data frame Tx indication generating mode can be set to correspond the number of said non-speech data frames to be transmitted with said priority, and to generate said non-speech data frame Tx indication according to the number of said non-speech data frames.

8. The method of claim 6, wherein said non-speech data frame Tx indication generating mode can be set to correspond the urgency of said non-speech data

frames to be transmitted with said priority, and to generate said non-speech data frame Tx indication according to the urgency of said non-speech data frame.

9. The method of claim 1, further comprising:

counting the number of non-speech data frames to be transmitted;

judging whether the counted number exceeds a predefined criterion;

pausing transmission of said non-speech data frames if the counted number exceeds the predefined criterion;

10. A mobile terminal capable of transmitting non-speech data in voice channel, comprising:

an indication generating unit, for generating a non-speech data frame Tx indication according to the preset non-speech data frame Tx indication generating mode;

a VAD flag generating unit, for generating a VAD flag about the next frame according to the non-speech data frame Tx indication;

a transmitting unit, for transmitting the non-speech data frame during the next frame if the VAD flag indicates that the next frame is non-speech period.

11. The mobile terminal of claim 10, wherein said VAD flag generating unit further includes:

an adjusting unit, for adjusting the VAD threshold currently used by said mobile terminal according to said non-speech data frame Tx indication;

said VAD flag generating unit, for generating the VAD flag of said next frame according to the adjusted VAD threshold.

12. The mobile terminal of claim 11, wherein said adjusting unit further includes:

a backup unit, for backing up said current VAD threshold;

a setting unit, for setting a value higher than said current VAD threshold as the adjusted VAD threshold;

a restoring unit, for restoring said adjusted VAD threshold to the backup VAD threshold after transmitting said non-speech data frames.

13. The mobile terminal of claim 12, wherein said non-speech data frame Tx indication generating mode can be set to generate the Tx indication to transmit said non-speech data frames instantly when there exist said non-speech data frames to be transmitted.

14. The mobile terminal of claim 12, wherein said non-speech data frame Tx indication generating mode can be set to generate the Tx indication to transmit said non-speech data frames instantly when the Tx deadline of the non-speech data frames to be transmitted expires.

15. The mobile terminal of claim 11, wherein said adjusting unit further includes:

a selecting unit, for selecting parameters corresponding to different priorities according to said non-speech frame Tx indication; said adjusting unit, for adjusting

said current VAD threshold to the value corresponding to different priority with the selected parameters.

16. The mobile terminal of claim 15, wherein said non-speech data frame Tx indication generating mode can be set to correspond the number of said non-speech data frames to be transmitted with said priority, and to generate said non-speech data frame Tx indication according to the number of said non-speech data frames.

17. The mobile terminal of claim 15, wherein said non-speech data frame Tx indication generating mode can be set to correspond the urgency of said non-speech data frame to be transmitted with said priority and to generate said non-speech data frame Tx indication according to the urgency of said non-speech data frame.

18. The mobile terminal of claim 10, further comprising:

a counter, for counting the number of non-speech frames to be transmitted;

a judging unit, for judging whether the counted number exceeds a predefined criterion;

a control unit, for pausing transmission of said non-speech frames.